

# STATE BOARD OF TECHNICAL EDUCATION BIHAR

## Scheme of Teaching and Examinations for VI<sup>th</sup> SEMESTER DIPLOMA IN MECHANICAL ENGINEERING

(Effective from Session 2020-21 Batch)

### THEORY

| Sr. No.                                      | SUBJECT                          | SUBJECT C ODE                           | TEACHING SCHEME                        |                                       | EXAMINATION- SCHEME               |                         |   |                     |                |                           |           |  |
|--|----------------------------------|---|--|---------------------------------------|-----------------------------------|-------------------------|---|---------------------|----------------|---------------------------|-----------|--|
|  |                                  |   | Periods per Week                       | Hours of Exam.                        | Teacher's Assessment (TA) Marks A | Class Test (CT) Marks B | End Semester Exam (ESE) Marks C           | Total Marks (A+B+C) | Pass Marks ESE | Pass Marks in the Subject | Credits   |  |
| 1.   | Entrepreneurship and Start-ups   | 2000601                                 | 03                                     | 03                                    | 10                                | 20                      | 70  | 100                 | 28             | 40                        | 03        |  |
| 2.   | Design of Machine Elements       | 2025602                                 | 04                                     | 03                                    | 10                                | 20                      | 70  | 100                 | 28             | 40                        | 04        |  |
| 3.   | Advanced Manufacturing Processes | 2025603                                 | 04                                     | 03                                    | 10                                | 20                      | 70  | 100                 | 28             | 40                        | 04        |  |
| 4.   | Open Elective-I                  |   | 03                                     | 03                                    | 10                                | 20                      | 70  | 100                 | 28             | 40                        | 03        |  |
| Energy Conservation & Audit (2025604A)       |                                  |   | Disaster Management (2015604B)         |                                       |                                   |                         |   |                     |                |                           |           |  |
| 5.   | Open Elective-II / COE           |   | 03                                     | 03                                    | 10                                | 20                      | 70  | 100                 | 28             | 40                        | 02        |  |
| Indian Constitution (2000605A)               |                                  |   | Operations Research (2025605B)         |                                       |                                   |                         | Project Management (2015605B)             |                     |                |                           |           |  |
| Artificial Intelligence (Advance) (2000605B) |                                  | Internet of Things (Advance) (2000605C) |  | Drone Technology (Advance) (2000605D) |                                   |                         | 3D Printing & Design (Advance) (2000605E) |                     |                |                           |           |  |
| Industrial Automation (Advance) (2000605F)   |                                  |   | Electric Vehicles (Advance) (2000605G) |                                       |                                   |                         | Robotics (Advance) (2000605H)             |                     |                |                           |           |  |
| <b>Total :-</b>                              |                                  |   | <b>17</b>                              |                                       |                                   |                         | <b>350</b>                                | <b>500</b>          |                |                           | <b>16</b> |  |

### PRACTICAL

| Sr. No.         | SUBJECT   | SUBJECT CODE | TEACHING SCHEME                                  |                | EXAMINATION-SCHEME                             |                |             |                           |           |
|-----------------|---|--------------|--|----------------|--|----------------|-------------|---------------------------|-----------|
|                 |   |              | Periods per Week                                 | Hours of Exam. | Practical (ESE)                                |                | Total Marks | Pass Marks In the Subject | Credits   |
|                 |   |              |  |                | Internal (PA)                                  | External (ESE) |             |                           |           |
| 6.              | Elective Lab / COE Lab                          |              | 04<br>50% Physical<br>50% Virtual                | 03             | 20   | 30             | 50          | 20                        | 02        |
|                 | Advanced Manufacturing Processes Lab (2025608A) |              | Artificial Intelligence (Advance) Lab (2000608B) |                | Internet of Things (Advance) Lab (2000608C)    |                |             |                           |           |
|                 | Drone Technology (Advance) Lab (2000608D)       |              | 3D Printing & Design (Advance) Lab (2000608E)    |                | Industrial Automation (Advance) Lab (2000608F) |                |             |                           |           |
|                 | Electric Vehicles (Advance) Lab (2000608G)      |              |  |                | Robotics (Advance) Lab (2000608H)              |                |             |                           |           |
| <b>Total :-</b> |   |              | <b>04</b>  |                |  |                | <b>50</b>   |                           | <b>02</b> |

### TERM WORK

| Sr. No.  | SUBJECT  | SUBJECT CODE                                    | TEACHING SCHEME                            |  | EXAMINATION-SCHEME                       |                         |             |                           |           |
|--|--|---|--|--|--|-------------------------|-------------|---------------------------|-----------|
|  |  |   | Periods per Week                           |  | Marks of Internal (PA)                   | Marks of External (ESE) | Total Marks | Pass Marks in the Subject | Credits   |
| 7.   | Seminar  | 2025609   | 4  |  | 15                                       | 35                      | 50          | 20                        | 2         |
| 8.   | Major Project                                  | 2025610   | 6  |  | 30                                       | 70                      | 100         | 40                        | 3         |
| 9.   | Term Work                                      |   | 2  |  | 20                                       | 30                      | 50          | 20                        | 1         |
|  | Course Under Moocs /NPTEL/ Others TW (2025611) | Artificial Intelligence (Advance) TW (2000611B) | Internet of Things TW (Advance) (2000611C) |  | Drone Technology TW (Advance) (2000611D) |                         |             |                           |           |
|  | 3D Printing & Design (Advance) TW (2000611E)   | Industrial Automation (Advance) TW (2000611F)   | Electric Vehicles (Advance) TW (2000611G)  |  | Robotics (Advance) TW (2000611H)         |                         |             |                           |           |
| <b>Total :-</b>  |  |   | <b>12</b>                                  |  |  |                         | <b>200</b>  |                           | <b>06</b> |
| <b>Total Periods per week Each of duration One Hour = 33</b> |  |   |  |  | <b>Total Marks = 750</b>                 |                         |             |                           | <b>24</b> |